



# NORLITE CORPORATION

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December 13, 2012

Karen M. Gaidasz, CPESC  
Environmental Analyst  
New York State Department of Environmental Conservation  
Region 4  
1130 North Westcott Road  
Schenectady, NY 12306-2014

RETURN RECEIPT REQUESTED VIA EMAIL

Mr. Kenneth Eng  
Air Compliance Branch  
United States Environmental Protection Agency  
Region 2  
290 Broadway  
New York, NY 10007-1866

RETURN RECEIPT REQUESTED VIA EMAIL

Re: Norlite Corporation-MACT Excessive Exceedance Report  
Kiln 1: 11/08/12- 12/11/12  
Kiln 2: 11/08/12- 12/11/12

Dear Sirs:

In accordance with 40 CFR 63.1206(c)(3)(vi), the Norlite Corporation (Norlite) is submitting an "Excessive Exceedance Report" for the timeframe of 11/08/12 thru 12/11/12. The attached document explains each of the "malfunctions" for Kiln One and Two.

The timeframe between the last MACT Exceedance report and this report is beyond the reporting limits specified in the MACT regulations. After a review of records was conducted, it was discovered that there was a sending error which occurred when a report was sent out on November 30, 2012. Instead of sending two separate reports, Norlite combined them into one report. Norlite apologize for the delay and will take extra steps to ensure this type of delay does not happen in the future.

The results of the investigation concluded a majority of the exceedances were a result of the 1 second time delay cutoff limit of -0.00 inches of water column associated with the negative backend chamber pressure. A large portion of the of the cutoffs were associated with November 20, 2012 in which controlling flow with valves and maintaining the minimum LGF line pressure contributed to operational difficulties. In order to maintain the minimum LGF Line Pressure, several valves in the recirculation line had to be partially closed which caused potential areas where build-up of material collected. On occasion, the built up material would break away and cause further problems down the fuel line. Norlite has also conducted a shutdown on Kiln 2 on December 3<sup>rd</sup> and 4<sup>th</sup> for scrubber and rear chamber maintenance. At that time approximately 50% of the inner seals on the Chamber System were replaced. None of the replaced seals showed signs of damage or were missing but were suspect on overall performance. Since the shutdown, Norlite has seen an increased performance of the rear chamber system on Kiln 2. The same type of maintenance is planned for Kiln 1 in the near future. Norlite and its consultant will continue to evaluate each cutoff in an effort to reduce the number of cutoffs which occur.

All of the malfunctions that occurred were consistent with our Startup, Shutdown and Malfunction Plan (SSMP). As approved by the NYSDEC on February 6, 2006, these reports are being sent electronically.



## NORLITE CORPORATION

Should you have any questions regarding this letter, please contact me at (518) 235-0401 or email at: tvanvranken@norlitecorp.com.

Sincerely,

*Thomas Van Vranken*

Thomas Van Vranken  
Environmental Manager

### Attachments

ecc: Don Spencer, NYDEC – R4 w/attachments  
James Lansing, NYSDEC – CO w/attachments  
Joe Hadersbeck, NYSDEC – R4w/attachments  
Tita LaGrimas, Tradebe w/attachments



NORLITE CORPORATION  
MACT EXCEEDANCE REPORT - KILN 1  
11/08/12 - 12/11/12

Start Date	Start Time	End Date	End Time	Downtime	#	Event	Cause	Parameter	Limit	Corrective Action
11/8/2012	22:19:44	11/8/2012	22:20:38	0:00:54	163	Malfunction	After A Tank Switch the LGF Pump Started Pulsing Which Caused Fuel Flow Pulses at the Kilns. The Fuel Flow Pulses Caused Pressure Pulses in the Kiln System Which Affected the Rear Chamber System	Back Chamber Pressure, 1 Second Delay	Opl	Restarted LGF Pump
11/8/2012	22:21:12	11/8/2012	22:22:26	0:01:14	164	Malfunction	After A Tank Switch the LGF Pump Started Pulsing Which Caused Fuel Flow Pulses at the Kilns. The Fuel Flow Pulses Caused Pressure Pulses in the Kiln System Which Affected the Rear Chamber System	Back Chamber Pressure, 1 Second Delay	Opl	Restarted LGF Pump
11/8/2012	22:26:20	11/8/2012	23:31:49	1:05:29	165	Malfunction	Previous Back Chamber Cutoff Caused System Instability Which Caused CO's to Spike	Carbon Monoxide	Opl	Adjusted Fuel Flow
11/18/2012	17:03:49	11/18/2012	21:19:19	4:15:30	166	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span / Rinsed Mist Pad	Stack Gas Flow Rate	Span	Adjusted Fuel Flow
11/19/2012	15:01:04	11/19/2012	15:01:43	0:00:39	167	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow
11/19/2012	17:23:43	11/19/2012	17:24:58	0:01:15	168	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow
11/20/2012	2:01:49	11/20/2012	2:04:02	0:02:13	169	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure HRA	Opl	Adjusted LGF Line Pressure and LGF Flow
11/20/2012	2:25:49	11/20/2012	3:01:13	0:35:24	170	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure HRA	Opl	Adjusted LGF Line Pressure and LGF Flow
11/20/2012	7:15:09	11/20/2012	7:15:24	0:00:15	171	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow



NORLITE CORPORATION  
MACT EXCEEDANCE REPORT - KILN 1  
11/08/12 - 12/11/12

Start Date	Start Time	End Date	End Time	Downtime	#	Event	Cause	Parameter	Limit	Corrective Action
11/20/2012	8:16:16	11/20/2012	8:16:28	0:00:12	172	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow
11/20/2012	8:42:26	11/20/2012	8:42:41	0:00:15	173	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow
11/20/2012	8:43:27	11/20/2012	8:44:23	0:00:56	174	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow
11/20/2012	14:42:40	11/20/2012	14:44:39	0:01:59	175	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System Which Affected the Differential Pressure at the Front End of the Kiln	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	14:54:30	11/20/2012	14:55:10	0:00:40	176	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System Which Affected the Differential Pressure at the Front End of the Kiln	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	19:03:15	11/20/2012	19:04:09	0:00:54	177	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System Which Affected the Differential Pressure at the Front End of the Kiln	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	19:12:14	11/20/2012	19:14:26	0:02:12	178	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System Which Affected the Differential Pressure at the Front End of the Kiln	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	20:11:17	11/20/2012	20:11:43	0:00:26	179	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow



NORLITE CORPORATION  
MACT EXCEEDANCE REPORT - KILN 1  
11/08/12 - 12/11/12

Start Date	Start Time	End Date	End Time	Downtime	#	Event	Cause	Parameter	Limit	Corrective Action
11/20/2012	20:20:35	11/20/2012	20:21:02	0:00:27	180	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System and Front End Kiln Pressure/No Visible Emissions	Simultaneous Instantaneous Front & Back Chamber Pressure	Opl	Adjusted LGF Line Pressure and LGF Flow
11/20/2012	20:35:09	11/20/2012	20:35:31	0:00:22	181	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System Which Affected the Differential Pressure at the Front End of the Kiln	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	20:36:07	11/20/2012	20:36:35	0:00:28	182	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System Which Affected the Differential Pressure at the Front End of the Kiln	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	22:18:20	11/20/2012	22:19:11	0:00:51	183	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow
11/20/2012	22:19:50	11/20/2012	22:20:20	0:00:30	184	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow
11/20/2012	22:28:05	11/20/2012	22:28:29	0:00:24	185	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow
11/20/2012	22:30:07	11/20/2012	22:30:33	0:00:26	186	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow
11/20/2012	22:32:19	11/20/2012	22:32:44	0:00:25	187	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow



NORLITE CORPORATION  
MACT EXCEEDANCE REPORT - KILN 1  
11/08/12 - 12/11/12

Start Date	Start Time	End Date	End Time	Downtime	#	Event	Cause	Parameter	Limit	Corrective Action
11/20/2012	22:34:16	11/20/2012	22:35:34	0:01:18	188	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System Which Affected the Differential Pressure at the Front End of the Kiln	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	23:10:15	11/20/2012	23:12:20	0:02:05	189	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System and Front End Kiln Pressure/No Visible Emissions	Simultaneous Instantaneous Front & Back Chamber Pressure	Opl	Adjusted LGF Line Pressure and LGF Flow
11/21/2012	2:00:53	11/21/2012	2:08:58	0:08:05	190	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System and Front End Kiln Pressure/No Visible Emissions	Simultaneous Instantaneous Front & Back Chamber Pressure	Opl	Adjusted LGF Line Pressure and LGF Flow
11/21/2012	11:08:31	11/21/2012	11:12:06	0:03:35	191	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow
11/21/2012	11:54:46	11/21/2012	15:59:32	4:04:46	192	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow
11/22/2012	11:28:58	11/22/2012	11:29:41	0:00:43	193	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System Which Affected the Differential Pressure at the Front End of the Kiln	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/22/2012	11:48:23	11/22/2012	11:49:20	0:00:57	194	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System Which Affected the Differential Pressure at the Front End of the Kiln	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/22/2012	12:19:33	11/22/2012	12:20:50	0:01:17	195	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow



NORLITE CORPORATION  
MACT EXCEEDANCE REPORT - KILN 1  
11/08/12 - 12/11/12

Start Date	Start Time	End Date	End Time	Downtime	#	Event	Cause	Parameter	Limit	Corrective Action
11/22/2012	13:27:50	11/22/2012	13:28:56	0:01:06	196	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System Which Affected the Differential Pressure at the Front End of the Kiln	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/22/2012	15:30:36	11/22/2012	15:31:01	0:00:25	197	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System Which Affected the Differential Pressure at the Front End of the Kiln	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/22/2012	15:31:06	11/22/2012	15:31:55	0:00:49	198	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System Which Affected the Differential Pressure at the Front End of the Kiln	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/24/2012	14:26:41	11/24/2012	14:29:01	0:02:20	199	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System Which Affected the Differential Pressure at the Front End of the Kiln	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/25/2012	11:25:41	11/25/2012	11:26:08	0:00:27	200	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow
11/25/2012	13:16:01	11/25/2012	13:16:23	0:00:22	201	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow
11/25/2012	21:23:32	11/25/2012	21:27:20	0:03:48	202	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow
11/26/2012	0:53:24	11/26/2012	0:54:46	0:01:22	203	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span	Stack Gas Flow Rate	Span	Adjusted Fuel Flow
11/26/2012	10:14:25	11/26/2012	10:23:11	0:08:46	204	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span	Stack Gas Flow Rate	Span	Adjusted Fuel Flow
11/27/2012	12:49:32	11/27/2012	14:59:02	2:09:30	205	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span/I&E Cleaned Probe	Stack Gas Flow Rate	Span	I&E Cleaned Probe



NORLITE CORPORATION  
MACT EXCEEDANCE REPORT - KILN 1  
11/08/12 - 12/11/12

Start Date	Start Time	End Date	End Time	Downtime	#	Event	Cause	Parameter	Limit	Corrective Action
11/30/2012	10:50:31	11/30/2012	11:03:17	0:12:46	206	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span	Stack Gas Flow Rate	Span	Adjusted Fuel Flow
12/1/2012	11:31:57	12/1/2012	11:36:32	0:04:35	207	Malfunction	The End of the Burn Tank Was Reached Which Caused a Loss of Flame and Caused a Sudden Change in the Overall Kiln System Pressure Which Affected the Rear Chamber System Pressure, Triggering the Upper Permit Limit to be Reached / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted LGF Line Pressure and LGF Flow
12/4/2012	16:12:43	12/4/2012	16:45:56	0:33:13	208	Malfunction	Kiln 2 Was Down for Repairs and the Isolation Valve Was Not Closed Which Caused a Decrease in the Efficiency of the Rear Chamber Vacuum System	Back Chamber Pressure HRA	Opl	Closed the Isolation Valve
12/4/2012	21:17:27	12/4/2012	21:18:08	0:00:41	209	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span	Stack Gas Flow Rate	Span	Adjusted Fuel Flow
12/6/2012	18:42:27	12/6/2012	18:43:48	0:01:21	210	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span	Stack Gas Flow Rate	Span	Adjusted Fuel Flow
12/6/2012	20:44:59	12/6/2012	20:46:01	0:01:02	211	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Water From Mist Pad Flush Hitting the Probe	Stack Gas Flow Rate	Span	Reduced Mist Pad Rinse Water Flow and Reduced ID Fan Speed
12/6/2012	20:52:46	12/6/2012	21:11:27	0:18:41	212	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Water From Mist Pad Flush Hitting the Probe	Stack Gas Flow Rate	Span	Reduced Mist Pad Rinse Water Flow and Reduced ID Fan Speed
12/7/2012	11:32:09	12/7/2012	11:32:48	0:00:39	213	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span	Stack Gas Flow Rate	Span	Adjusted Fuel Flow
12/7/2012	16:00:43	12/7/2012	16:07:28	0:06:45	214	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span	Stack Gas Flow Rate	Span	Adjusted Fuel Flow
12/7/2012	22:41:03	12/7/2012	22:41:47	0:00:44	215	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span	Stack Gas Flow Rate	Span	Adjusted Fuel Flow
12/8/2012	1:01:04	12/8/2012	1:02:40	0:01:36	216	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span	Stack Gas Flow Rate	Span	Adjusted Fuel Flow
12/11/2012	14:30:04	12/11/2012	14:35:55	0:05:51	217	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span	Stack Gas Flow Rate	Span	Adjusted Fuel Flow





NORLITE CORPORATION  
MACT EXCEEDNACE REPORT - KILN 2  
11/08/12 - 12/11/12

Start Date	Start Time	End Date	End Time	Downtime	#	Event	Cause	Parameter	Limit	Corrective Action
11/16/2012	3:52:53	11/16/2012	3:53:21	0:00:28	384	Malfunction	Kiln 1 Was Down For Maintenance Which Caused A Decrease In the Effectiveness of the Draft System for the Rear Chamber System of Kiln 2	Back Chamber Pressure, 1 Second Delay	Opl	Norlite Personnel Closed the Fresh Air In-Take Valve to Help Improve the Draft System Efficiency
11/16/2012	3:53:33	11/16/2012	3:53:55	0:00:22	385	Malfunction	Kiln 1 Was Down For Maintenance Which Caused A Decrease In the Effectiveness of the Draft System for the Rear Chamber System of Kiln 3	Back Chamber Pressure, 1 Second Delay	Opl	Norlite Personnel Closed the Fresh Air In-Take Valve to Help Improve the Draft System Efficiency
11/16/2012	20:12:45	11/16/2012	20:13:20	0:00:35	386	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/17/2012	1:02:29	11/17/2012	1:03:46	0:01:17	387	Malfunction	The Venturi Scrubber Was Partially Plugged Which Decreased the Overall Draft in the Kiln System Which Affected the Rear Chamber System	Back Chamber Pressure HRA	Opl	Pulled the Headers To Try To Free Up the Soda Ash Scale
11/17/2012	4:25:52	11/17/2012	4:27:02	0:01:10	388	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/17/2012	14:04:26	11/17/2012	15:36:51	1:32:25	389	Malfunction	The Venturi Scrubber Was Partially Plugged Which Decreased the Overall Draft in the Kiln System Which Affected the Rear Chamber System	Back Chamber Pressure HRA	Opl	Pulled the Headers To Try To Free Up the Soda Ash Scale
11/17/2012	16:03:08	11/17/2012	16:03:38	0:00:30	390	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/18/2012	0:23:55	11/18/2012	1:26:39	1:02:44	391	Malfunction	The Venturi Scrubber Was Partially Plugged Which Decreased the Overall Draft in the Kiln System Which Affected the Rear Chamber System	Simultaneous Front and Back Chamber Pressure	Opl	Pulled the Headers To Try To Free Up the Soda Ash Scale
11/18/2012	5:59:00	11/18/2012	7:11:29	1:12:29	392	Malfunction	Lost Pilot Which Stopped LGF Flow. When Reintroducing Fuel, A Fuel Flow Surge Occurred Which Caused CO's to Spike	Carbon Monoxide	Opl	Adjusted Fuel Flow
11/19/2012	10:12:03	11/19/2012	12:40:52	2:28:49	393	Malfunction	The Mist Pad Was Partially Plugged And Building Up Water Which Was Affecting the Stack Gas Probe Which Caused the Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span	Stack Gas Flow Rate	Span	Rinsed Mist Pad and Adjusted Fuel Flow

11/19/2012	13:33:46	11/19/2012	13:34:16	0:00:30	394	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	8:28:53	11/20/2012	8:32:27	0:03:34	395	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System and Front End Pressure	Front and Back Chamber Pressure, Simultaneous	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	9:05:22	11/20/2012	9:07:57	0:02:35	396	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	9:17:31	11/20/2012	9:20:18	0:02:47	397	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	10:40:42	11/20/2012	10:41:40	0:00:58	398	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	13:05:17	11/20/2012	13:11:01	0:05:44	399	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	14:40:40	11/20/2012	14:42:26	0:01:46	400	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	22:43:31	11/20/2012	22:43:57	0:00:26	401	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	22:45:40	11/20/2012	22:46:05	0:00:25	402	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure

11/20/2012	22:49:06	11/20/2012	22:49:28	0:00:22	403	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	22:51:59	11/20/2012	22:56:51	0:04:52	404	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	23:00:36	11/20/2012	23:01:02	0:00:26	405	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	23:04:52	11/20/2012	23:05:22	0:00:30	406	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/20/2012	23:26:56	11/20/2012	23:27:50	0:00:54	407	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/21/2012	12:25:42	11/21/2012	12:27:12	0:01:30	408	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/23/2012	10:46:38	11/23/2012	10:47:54	0:01:16	409	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/23/2012	12:24:37	11/23/2012	12:25:36	0:00:59	410	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/23/2012	13:13:50	11/23/2012	13:14:29	0:00:39	411	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure

11/23/2012	13:19:30	11/23/2012	14:47:45	1:28:15	412	Malfunction	The Previous Cutoff Caused a Loss of Fuel Flow Which Caused the CO's to Rise	Carbon Monoxide		Adjusted Fuel Flow
11/23/2012	15:11:47	11/23/2012	15:12:26	0:00:39	413	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/23/2012	15:33:46	11/23/2012	16:14:33	0:40:47	414	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/24/2012	9:18:59	11/24/2012	9:19:23	0:00:24	415	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/24/2012	11:06:43	11/24/2012	11:07:42	0:00:59	416	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/24/2012	14:00:53	11/24/2012	14:01:54	0:01:01	417	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/24/2012	14:02:29	11/24/2012	14:03:25	0:00:56	418	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/26/2012	12:27:20	11/26/2012	12:27:50	0:00:30	419	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/27/2012	7:21:56	11/27/2012	13:03:16	5:41:20	420	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span	Stack Gas Flow Rate	Span	Adjusted Fuel Flow
11/28/2012	10:20:35	11/28/2012	11:38:50	1:18:15	421	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure

11/28/2012	18:56:05	11/28/2012	18:56:30	0:00:25	422	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System and Front End Pressure	Simultaneous Front and Back Chamber		Adjusted Fuel Flow and LGF Line Pressure
11/28/2012	21:10:06	11/28/2012	21:10:25	0:00:19	423	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/29/2012	1:35:54	11/29/2012	1:36:35	0:00:41	424	Malfunction	Kiln Operators Were Using Valves to Control Fuel Flow. A Fuel Flow Surge was Experienced Due to High LGF Line Pressure Which Caused a Pressure Pulse in the Kiln System	Front Kiln Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/29/2012	9:53:40	11/29/2012	9:54:58	0:01:18	425	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/29/2012	10:48:59	11/29/2012	10:50:43	0:01:44	426	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/29/2012	10:51:37	11/29/2012	10:55:46	0:04:09	427	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/29/2012	11:23:47	11/29/2012	11:26:12	0:02:25	428	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/29/2012	13:43:22	11/29/2012	13:44:49	0:01:27	429	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure

11/29/2012	15:09:44	11/29/2012	15:11:10	0:01:26	430	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
11/29/2012	15:36:29	11/29/2012	15:37:07	0:00:38	431	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
12/1/2012	2:46:23	12/1/2012	2:47:04	0:00:41	432	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System and Front End Pressure	Simultaneous Front and Back Chamber	Opl	Adjusted Fuel Flow and LGF Line Pressure
12/2/2012	1:25:52	12/2/2012	2:31:43	1:05:51	433	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions / Flame Out / High CO's	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
12/2/2012	4:05:03	12/2/2012	4:07:30	0:02:27	434	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
12/2/2012	7:42:09	12/2/2012	7:43:40	0:01:31	435	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
12/2/2012	11:08:24	12/2/2012	11:09:36	0:01:12	436	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
12/2/2012	12:32:04	12/2/2012	12:34:45	0:02:41	437	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure

12/2/2012	14:03:41	12/2/2012	14:05:11	0:01:30	438	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
12/3/2012	5:58:22	12/3/2012	5:59:27	0:01:05	439	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay		Adjusted Fuel Flow and LGF Line Pressure
12/6/2012	23:15:44	12/6/2012	23:16:05	0:00:21	440	Malfunction	Instantaneous Upper Instrument Setpoint Reached for LGF Flow Span	LGF Flow	Span	Adjusted Fuel Flow
12/7/2012	1:15:16	12/7/2012	2:00:40	0:45:24	441	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span/ I&E Cleaned Probe	Stack Gas Flow Rate	Span	I&E Cleaned Probe
12/7/2012	6:04:16	12/7/2012	6:44:42	0:40:26	442	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
12/8/2012	3:42:18	12/8/2012	5:04:50	1:22:32	443	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span/ I&E Cleaned Probe	Stack Gas Flow Rate	Span	I&E Cleaned Probe
12/8/2012	6:01:37	12/8/2012	6:02:04	0:00:27	444	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span	Stack Gas Flow Rate		Adjusted Fuel Flow
12/10/2012	20:49:24	12/10/2012	20:49:42	0:00:18	445	Malfunction	The Kiln Operator was Controlling LGF Fuel Flow With Valves and High LGF Line Pressure Which Caused a Fuel Flow Surge. This Triggered a Pressure Pulse in the Kiln that Affected the Rear Chamber System / No Visible Emissions	Back Chamber Pressure, 1 Second Delay	Opl	Adjusted Fuel Flow and LGF Line Pressure
12/11/2012	18:12:19	12/11/2012	21:06:10	2:53:51	446	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span/ Rinsed Mist Pad	Stack Gas Flow Rate	Span	Rinsed Mist Pad and Adjusted Fuel Flow